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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,673	08/31/2001	Glen Salmon	3330/55	1256
29858 7590 06/06/2007 THELEN REID BROWN RAYSMAN & STEINER LLP 900 THIRD AVENUE NEW YORK, NY 10022				
			EXAMINER WU, QING YUAN	
			ART UNIT 2194	PAPER NUMBER
			MAIL DATE 06/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Supplemental
Notice of Allowability**

Application No.

09/943,673

Examiner

Qing-Yuan Wu

Applicant(s)

SALMON ET AL.

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/30/07.
2. ☒ The allowed claim(s) is/are 1-7,9-11 and 13-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 5/30/07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

SUPPLMENTAL EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for the supplemental examiner's amendment was given in a telephone interview with Mr. Seth H. Ostrow, Reg. No. 37,410 to cancel claims 23-29 and 31-33; and to further amend claims 11 and 21 in the fax supplemental amendment submitted by applicant on May 25, 2007 as follow:

3. As to claim 11:

A thread ~~consistency support~~ management system comprising a thread consistency support system and a restrictive back-end system for providing thread consistency between a multi-threaded application and a thread-dependent connector allocated in [[a]] the restrictive back-end system, wherein the thread-dependent connector only supports a single thread to link to that connector for operations on the thread-dependent connector, and wherein the multi-threaded application creates multiple threads that attempt to access the connector, the system comprising at least one processing device operative to provide:

an arbiter layer positioned between the multi-threaded application and the thread-dependent connector, the arbiter layer being configured to receive multiple threads from the multi-threaded application and to produce a single internal thread by mapping each of the

multiple threads from the arbiter layer to the thread-dependent connector upon which operations of each of the multiple threads are performed; and

an activation detector that activates the arbiter layer in response to the activation detector detecting a multi-threaded application attempting to access the restrictive back-end system.

4. As to claim 21:

A thread ~~consistency support~~ management system comprising a thread consistency support system and a restrictive back-end system for providing thread consistency from a connector application program interface that creates multiple threads to a thread-dependent connector that only allows a single thread to link to that thread-dependent connector for all operations on that thread-dependent connector by mapping each of the multiple threads to the single thread, the system comprising at least one processing device operative to provide:

a threading meta-connector interacting between the connector application program interface and the thread-dependent connector, wherein the threading meta-connector establishes a connection handle for a single internal thread with the thread-dependent connector that is returned to the connector application program interface of a calling multi-threaded application in place of connection handles requested for multiple application threads, in response to the threading meta-connector's receipt of multiple application threads from the connector application program interface; and

an activation detector that activates the threading meta-connector in response to the activation detector identifying a multi-threaded application attempting to access a thread-dependent connector;

thereby ensuring that the single internal thread that initializes a connection from the thread-dependent connector is used for all subsequent operations attempted by the multiple application threads from the multi-threaded application to that thread-dependent connector.

REASONS FOR ALLOWANCE

5. The following is an Examiner's Statement of Reasons for Allowance:

The prior art of record does not expressly teach or render obvious, in the context of the claims taken as a whole, the invention as recited in independent claims 1, 11 and 21-22.

6. Connection sharing among multiple threads (subtasks) through a thread-dependent connection was uncovered in U.S. Patent 6,314,430 (Chang). The mapping of multiple threads with a single thread was uncovered in U.S. Patent 6,301,676 (Kumar et al) [col. 4, lines 13-16; 207-208, Fig. 2]. However, the reference taken alone or in combination do not expressly teach or render obvious, in the context of the claims taken as a whole, the invention as recited in independent claims 1, 11 and 21-22.

Nor was a reference uncovered that would have provided a basis of evidence for asserting a motivation that one of ordinary skill level in the art at the time the invention was made, knowing connection sharing among multiple threads (subtasks) through a thread-dependent connection, and mapping of multiple threads with a single thread would have combined the prior art of record to arrived at the present invention as recited in the context of independent claims 1, 11 and 21-22.

Art Unit: 2194

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qing-Yuan Wu whose telephone number is (571) 272-3776. The examiner can normally be reached on 8:30am-6:00pm Monday-Thursday and alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Qing-Yuan Wu

Patent Examiner

Art Unit 2194